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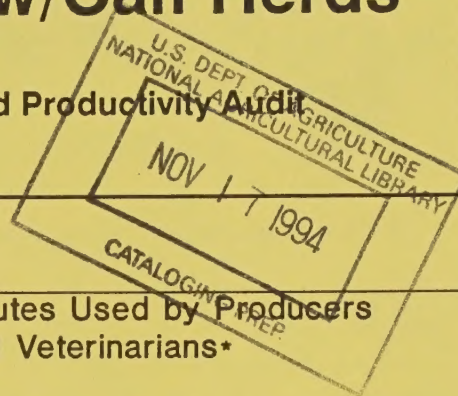
United States  
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# Injection Sites in U.S. Beef Cow/Calf Herds

Beef Cow/Calf Health and Productivity Audit



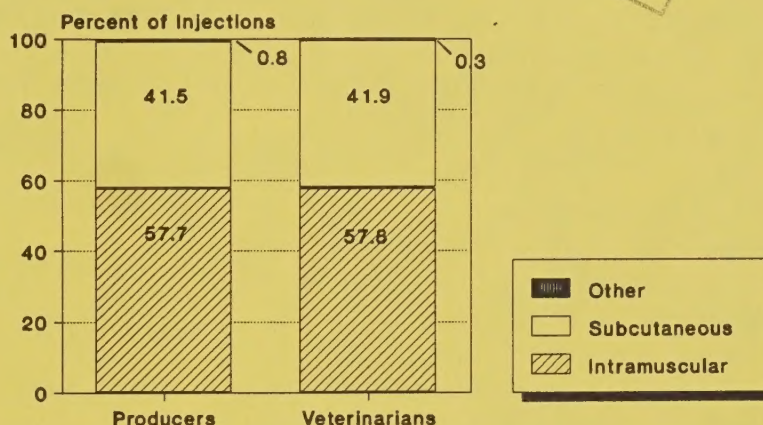
In 1992, 57.7 percent of the injections cow/calf producers, their employees, and families gave to beef cattle were in the muscle, and 41.5 percent were given under the skin. According to producers, the percentages of injections delivered by their veterinarians were similar (Figure 1).

The 1991 National Beef Quality Audit<sup>1</sup> identified injection site blemishes as the second greatest concern to those who sell beef, next to excess external fat. Their primary concerns were the image blemishes project about the wholesomeness and quality of meat products and the 46 million dollar losses in 1991 due to meat that had to be trimmed from the top sirloin butt. The quality audit identified the primary cause for blemishes as injections given in the muscle of the upper hip.

The beef industry has focused considerable resources toward correcting this problem, currently 41 states have beef quality assurance programs working to improve the situation. To provide information on the interaction between animal health and product wholesomeness, the National Animal Health Monitoring System (NAHMS) included questions on injection sites in the 1992-93 Cow/Calf Health and Productivity Audit (CHAPA). The questions were designed to identify who was giving injections on cow/calf operations and the location of injection sites on the animal. In October 1992, the questions were asked of 3,379 producers from operations throughout the lower 48 states. Producers were selected randomly so the study results would

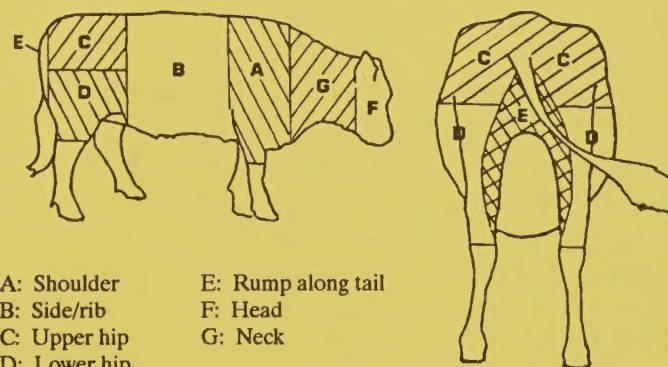
Figure 1

## Injection Routes Used by Producers and Veterinarians\*



\*According to producers.

Figure 2



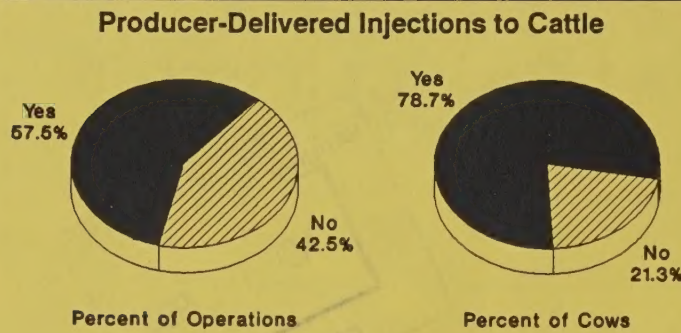
## Injection Sites Defined for the Beef Cow/Calf Health and Productivity Audit

represent U.S. beef cow/calf producers. Figure 2 shows the injection sites referenced in the questions.

<sup>1</sup> G.C. Smith (ed.), The Final Report of the National Beef Quality Audit - 1991. Colorado State University, Fort Collins, CO, and Texas A & M University, College Station, TX.



Figure 3



Nearly 58 percent of U.S. beef producers gave some injections to their animals in the preceding 12 months. Those operations accounted for 78.7 percent of the nation's beef cows (Figure 3).

Producers were also asked about injections administered by their veterinarians. Forty-two percent of producers reported that some injections had been given by veterinarians on their operation in the preceding 12 months (Figure 4). These operations represented 52.8 percent of the U.S. beef cow herd.

Figure 4

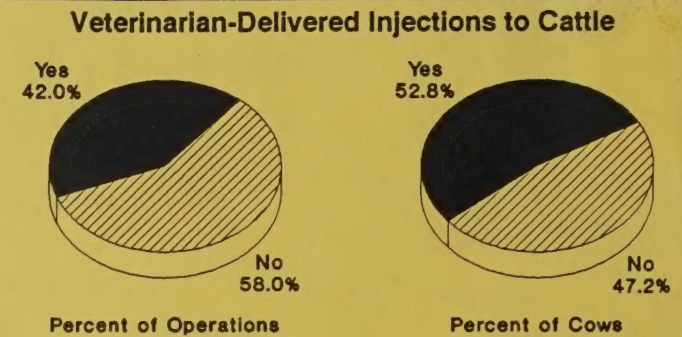
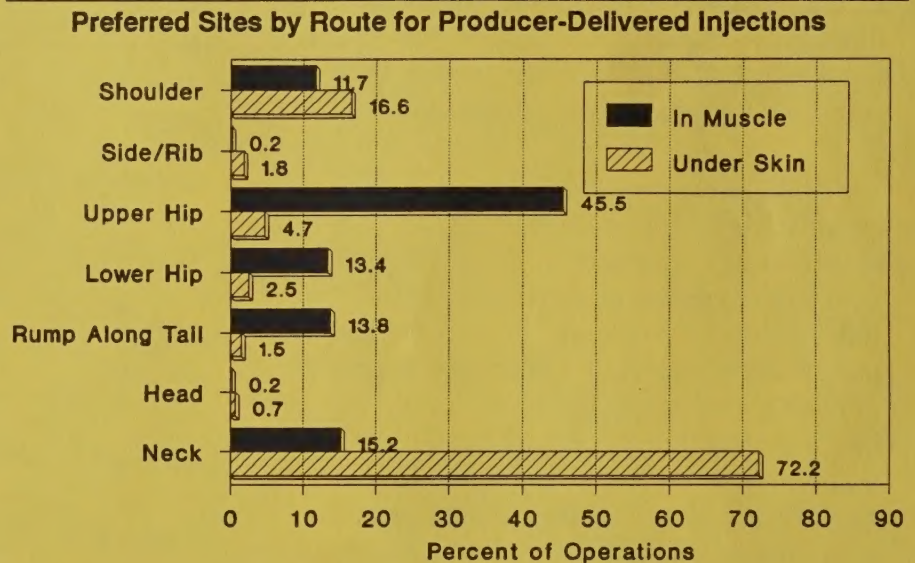


Figure 5



Of the producers giving injections, 79 percent gave some of them in the muscle. As shown in Figure 5, the two most commonly preferred sites were the upper hip (45.5 percent) and the neck (15.2 percent). Over 72 percent of producers giving injections in the muscle preferred a site on the hind leg. Sixty-two percent of the producers giving injections gave some under the skin, and most of those (72.2 percent) chose the neck as the primary site.

Just over 72 percent of the producers reported that some injections given by veterinarians were placed in the muscle. According to the producers, the most commonly preferred site for muscle injections given by a veterinarian was the upper hip (32.2 percent), followed by the neck (28.2 percent) and the shoulder (16.1 percent).

Nearly 58 percent of producers also reported that at least some of the veterinarian-given

injections were placed under the skin. According to producers, 80.1 percent of the veterinarians selected the neck as the preferred site for subcutaneous injections.

Collaborators in the CHAPA included the National Agricultural Statistics Service (USDA) and State and Federal Veterinary Medical Officers, and the National Veterinary Services Laboratories (USDA:APHIS:VS). For more information on the National Cow/Calf Health and Productivity Audit and other NAHMS programs, please contact:

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